

CLAIMS

1. A positive active material comprising a composite oxide which is constituted of at least lithium (Li), manganese (Mn), nickel (Ni), cobalt (Co), and oxygen (O) and is represented by the following chemical composition formula:



(wherein $0 < a \leq 1.3$

$$|b-c| \leq 0.05$$

$$0.6 \leq d < 1$$

$$1.7 \leq e \leq 2.3$$

$$b+c+d=1).$$

2. A positive active material comprising a composite oxide which is constituted of at least lithium (Li), manganese (Mn), nickel (Ni), cobalt (Co), and oxygen (O) and is represented by the following chemical composition formula:



(wherein $0 < a \leq 1.3$

$$|b-c| < 0.03$$

$$0.8 \leq d < 1$$

$$1.7 \leq e \leq 2.3$$

$$b+c+d=1).$$

3. A non-aqueous electrolyte battery having a positive electrode containing the positive active material of claim

1 or 2, a negative electrode, and a non-aqueous electrolyte.

4. A non-aqueous electrolyte battery having a positive electrode, a negative electrode, and a non-aqueous electrolyte, characterized in that the positive electrode contains a lithium-manganese oxide (A) having a spinel structure and represented by the general formula LiMn_2O_4 and a lithium-nickel-manganese-cobalt composite oxide (B) having an $\alpha\text{-NaFeO}_2$ type layer structure and represented by the general formula $\text{Li}_a\text{Mn}_b\text{Ni}_c\text{Co}_d\text{O}_e$,

wherein

$$0 < a \leq 1.3$$

$$|b - c| \leq 0.05$$

$$0.6 \leq d < 1$$

$$1.7 \leq e \leq 2.3$$

$$b + c + d = 1.$$

5. A non-aqueous electrolyte battery having a positive electrode, a negative electrode, and a non-aqueous electrolyte, characterized in that the positive electrode contains a lithium-manganese oxide (A) having a spinel structure and represented by the general formula LiMn_2O_4 and a lithium-nickel-manganese-cobalt composite oxide (B) having an $\alpha\text{-NaFeO}_2$ type layer structure and represented by the general formula $\text{Li}_a\text{Mn}_b\text{Ni}_c\text{Co}_d\text{O}_e$,

wherein

$$0 < a \leq 1.3$$

$$|b - c| < 0.03$$

$$0.8 \leq d < 1$$

$$1.7 \leq e \leq 2.3$$

$$b + c + d = 1.$$

6. The non-aqueous electrolyte battery of claim 4 or 5, characterized in that the positive electrode contains the (A) and the (B) in a proportion (weight ratio) of from 5:95 to 90:10.